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ABSTRACT

An exploratory model was constructed on the assumption that adolescents' exposure to violence predicts their heightened concern about violent incidents occurring. The model, which incorporated an ecological perspective, was tested with a sample of 422 suburban middle school students. Participants responded to measures assessing concern about violent incidents occurring and actual exposure to violence in four prevalent areas. Students reporting more exposure to violence at school also reported greater exposure outside of school, and exposure was related to higher concern. Being bullied, both at school and elsewhere, and having property stolen at school were most influential in predicting student concern about violence. The findings identify areas contributing to student concern while supporting an ecological approach to addressing adolescent concern about violence. They provide potentially useful insights for educators about perceptions of school safety among middle-class, suburban, early adolescents. Given the results, further study that might support generalization of these findings across multiple environmental settings appears warranted. Three tables at the end of the paper contain study survey statistics (means, standard deviations, bivariate correlations, and multiple regression results of responses). (Contains 16 references.) (RT)

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Influences on Adolescent Concern About Violence:

An Ecological Perspective

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Abstract

An exploratory model was constructed whereby exposure to violence predicted adolescent concern about violent incidents occurring. The model, which incorporated an ecological perspective, was tested with a sample of 422 suburban middle school students. Participants responded to measures assessing concern about violent incidents occurring and actual exposure to violence in four prevalent areas. Students reporting more exposure to violence at school also reported greater exposure outside of school, and exposure was related to higher concern. Being bullied, both at school and elsewhere, and having property stolen at school were most influential in predicting student concern about violence. The findings identify areas contributing to student concern while supporting an ecological approach to addressing adolescent concern about violence.

Influences on Adolescent Concern About Violence:
An Ecological Perspective

Current research (Kaufman, et al., 1999) indicates that students are increasingly vulnerable to violence both at school and when they are away from school. Exposure to violence has been shown to affect school functioning (Cooley-Quille, Turner, & Beidel, 1995) and emotional well-being (Bowen & Chapman, 1996). An ecological theory of human development (Bronfenbrenner, 1986) is one prominent paradigm that may be useful in addressing the distress that comes from feeling unsafe in multiple environments. Ecological theory contents that school and community violence are microsystem characteristics that represent multiple environmental risks to developing youth (Bogenschneider, 1996). According to Garbarino and Abramowitz (1992), violent aggression can directly threaten perceptions of safety in settings in which youth live and attend school. Although many youth today are concerned and do not feel safe in their schools and neighborhoods (Bowen & Bowen, 1999), research examining student concern within an ecological framework has been limited.

Student victimization rates, determined through a joint effort of the Bureau of Justice Statistics and the National Center for Education Statistics (Kaufman, et. al, 1999) suggest that adolescents are often exposed to aggression in four prevalent areas. While the number of incidents reported in these areas (use of physical force, being threatened with a weapon, having property stolen, being bullied) provides information on the magnitude of the problem,

research has yet to determine the ways in which exposure in specific areas affects student concern about safety. Further, although most research regarding student aggression has focused on urban youth (Boney-McCoy & Finkelhor, 1995), Kuther and Fisher (1998) conducted a study in which more than two-thirds of students in a suburban locale reported experiencing violent incidents. The purpose of this study was to investigate the influence of exposure to aggression on suburban adolescents' concern about violence, using an ecological perspective. The following research questions were addressed:

(1) In both student environments, are higher levels of exposure to violence related to increased concern about violent incidents occurring?

(2) Which prevalent types of aggression most influence student concern about violence?

Method

Participants and Procedure

Study participants included 6th (n = 223) and 7th (n = 199) graders attending one suburban mid-western public middle school. The 217 females and 205 males were predominantly Euro-American and middle-class. Any student not in full-time special education placement at the school was invited to participate. Parent/guardian consent forms were distributed by teachers in class for the students to take home. This form specified the purpose and procedures of the study, the voluntary nature of participation, and the confidentiality of all responses. Participants were self-administered questionnaires assessing

school safety by teachers during their regularly scheduled first-period class. Information was collected anonymously; student names did not appear on any of the survey forms. In all, 422 of the 818 eligible middle-school students participated; the remaining students were denied parental permission to participate or were unavailable or unwilling to take part in the study.

Measures

The School Safety Survey (Mahaffey, 1995) includes items which ask students to "rate your level of concern regarding incidents that could occur" in four prevalent areas of aggressive violence; being bullied, use of physical force, having property stolen, and being threatened with a weapon. All items were rated along Likert-type scales that ranged from 1 (Not concerned) to 5 (Very concerned). Summed scores, ranging from four to twenty, provided the continuous measure of "concern" reported here. Cronbach alpha calculated with the middle school data yielded an index of .81, indicating good internal consistency reliability for this item set.

Students were also asked to report how often violence in the four prevalent areas had occurred to them, both at school and outside of school (neighborhood, home, movies, shopping, restaurants, etc.). Again, subscale scores could range from four to twenty, with higher scores indicating greater exposure to violent aggression. The reliability of the four items in each environment (school $\alpha = .700$; elsewhere $\alpha = .698$) tend to support internal consistency reliability for these item sets.

Results

Gender differences in reported exposure and concern (Table 1) were assessed and the results indicated that females and males were similarly concerned across the four areas of violence. However, differences in reported exposure varied by gender both at school [$F(3,1251) = 6.50$; $p < .001$] and elsewhere [$F(3, 1251) = 3.41$; $p < .02$]. Based upon simple effect analysis (Keppel, 1991) males reported being bullied more often than females both at school and outside of school. Males also reported significantly more exposure to physical force outside of school than did females.

Overall, the correlation coefficient between exposure to violence and student concern about violent incidents occurring was .358 ($p < .001$) at school and .260 ($p < .001$) elsewhere. Exposure at school and elsewhere were also significantly associated ($r = .505$; $p < .001$) with about 26% shared variability. Bivariate exposure-to-concern correlations were also calculated across all specific areas (see Table 2). Adolescent exposure to violence in the four prevalent areas was significantly related to reported concern in both adolescent environments. Further, violence exposure in the four areas were significantly inter-related, with shared variability ranging from 3% to 24% at school, and from 1% to 20% outside of school.

Standard multiple regression analysis was used to examine the predictive power of the exposure variables with respect to student concern about violence. Although gender differences in exposure were reported, the primary focus here was on predicting concern. Therefore, concern was regressed upon the set of eight exposure variables (at school and

elsewhere) using the full (N = 422) sample data. This allowed for an assessment of the relative influence of exposure in each of the four areas within the two environments. A significant amount of the variability in adolescent concern (about 16%) was accounted for by this predictor set [$F(8,412) = 9.72$; $p < .001$]. The most influential predictors were being bullied, both at school and outside of school, and having property stolen at school (see Table 3). It is noteworthy that neither use of physical force nor being threatened with a weapon influenced reported concern among these suburban adolescents.

Discussion

The primary aim of this study was to discover whether exposure to violence played a role in perceived concern about violent incidents occurring within an ecological perspective. Taken together, these findings provide potentially useful insights to educators about perceptions of school safety among middle class, suburban, early adolescents. Given the results, further study on generality of these findings across multiple environmental settings appears warranted.

Extending prior research, these suburban middle-school students tended to acknowledge the threat of violence (Kuther & Fisher, 1998; O'Keefe, 1997) both at school and elsewhere. Further, although concern about violence did not differ by gender, males reported greater exposure to violence than did females (see also Hinton-Nelson, Roberts & Snyder, 1996). Vicarious experiences, noted for altering judgments of vulnerability (Bandura, 1989) may have amplified the concern conveyed by females. Overall, those who had witnessed violence around them were inclined to report more concern, whereas those with less exposure reported

being less concerned about the potential for violence, a finding consistent across all four areas noted for touching students' lives (Kaufman, et al., 1999).

Both the school-to-elsewhere associations (overall and within the four prevalent areas) and the exposure-to-concern associations lend support to the notion that adolescent risk behaviors tend to cluster (St. George & Thomas, 1997). Further, influential predictors cut across both environments, providing support for the ecological hypothesis that violence at school, as well as in the neighborhood microsystem, affected adolescent concern. It is notable that being bullied greatly influenced concern, as there has been a growing interest among educators and researchers with bully-victim problems during adolescence (Boulton & Underwood, 1992). Although having property stolen outside of school and exposure to physical force and weapons were all related to expressed concern, they did not contribute to the prediction of concern. These exposure-to-concern relationships may have been an indirect result of the association between being bullied and having property stolen at school and adolescent concern about violence. Regardless, it appears that the various environments in which adolescent grow and function should not be viewed independently (Bogenschneider, 1996).

Violence becomes particularly acute during early adolescence (Pellegrini, Bartini, & Brooks, 1999), a time of rapid physical and social change. Violence prevention messages are currently being integrated into school programs (Bowen & Bowen, 1999). Educators and community members represent dual components that might work hand-in-hand toward developing activities to reduce violence and concern about violence for the sake of all youth.

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Table 1

Concern, Exposure at School, and Exposure Elsewhere

Means and Standard Deviations Across Four Prevalent Areas

for Females (N = 217) and Males (N = 205)

	Concern				Exposure							
					School				Elsewhere			
	Male		Female		Male		Female		Male		Female	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Force	3.43	1.26	3.51	1.11	2.31	0.78	2.21	0.63	2.47	0.92	2.26	0.66
Steal	3.82	1.20	3.86	1.12	2.80	1.04	2.87	1.14	2.52	0.92	2.53	0.96
Bully	3.44	1.22	3.55	1.20	2.89	1.20	2.54	0.95	2.64	1.07	2.44	0.92
Weapon	3.84	1.40	3.87	1.29	2.54	1.04	2.67	1.08	2.97	1.31	3.09	1.36

Table 2

Bivariate Correlations (N = 422) in the Four Prevalent Areas

Exposure at School to Elsewhere Associations

and Exposure to Concern Associations

	Force	Steal	Bully	Weapon	Exposure to Concern at School
Force	----	.239*	.493*	.173*	.255*
Steal	.304*	----	.286*	.230*	.303*
Bully	.451*	.254*	----	.220*	.252*
Weapon	.239*	.274*	.107*	----	.168*
Exposure to Concern Elsewhere	.129 (p=.008)	.232*	.230*	.137 (p=.005)	

* $p < .001$

Note: Upper off-diagonal elements = Exposure to violence at school

Lower off-diagonal elements = Exposure to violence elsewhere

Table 3

Multiple Regression of Adolescent Concern About Violence on Exposure Variables

	Variables	Beta	*t*-ratio	p-val.
At School:	Force	.072	1.33	.181
	Steal	.151	2.87	.005
	Bully	.171	3.27	.002
	Weapon	.053	0.95	.327
Elsewhere:	Force	.074	1.31	.188
	Steal	.020	0.37	.999
	Bully	.120	2.23	.025
	Weapon	.002	0.06	.999